*PATENT*

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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| Appellant: | **Lawrence WILCOCK** | Examiner: | Sujatha R. SHARMA |
| Serial No.: | **09/858,146** | Art Unit: | 2684 |
| Filed: | May 15, 2001 | Our Ref: | B-4182 618805-0<br>30003023-0 US |
| For: | "OBTAINING LOCATION UPDATES ABOUT A ..." | Date: | June 13, 2006 |
| | | Re: | ***Appeal to the Board of Appeals*** |

## BRIEF ON APPEAL

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an appeal from the Final rejection, dated January 13, 2006, for the above identified patent application. Appellant submits that this Appeal Brief is being timely filed because the Notice of Appeal was filed on April 13, 2006. Please deduct the amount of $500.00 for the fee set forth in 37 C.F.R. 1.17(c) for submitting this Brief from deposit account no. 08-2025.

## REAL PARTY IN INTEREST

The real party in interest to the present application is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

## RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences related to the present application.

## STATUS OF CLAIMS

Claims 1 - 19 are the subject of this Appeal and are reproduced in the accompanying appendix.

## STATUS OF AMENDMENTS

No Amendment After Final Rejection has been entered.

## SUMMARY OF CLAIMED SUBJECT MATTER

The invention described and claimed in the present application relates generally to a method and apparatus for obtaining location updates about a mobile entity such as a cellular telephone for use in a location-sensitive application (p. 1 ll. 6-7). Claim 1 in particular is directed to a method of obtaining location data about a mobile entity for provision to a location-sensitive application comprising periodically obtaining location updates indicative of the current location of the mobile entity from a first source of location data (p. 12 ll. 23-29), and extending the interval between the location updates from said first source when location data indicative of the current location of the mobile entity is available from at least one other source of location data that operates independently of said first source and the location updates provided thereby (p. 13 l. 23 – p. 14 l. 13).

Claim 14 is directed to an apparatus for obtaining location data about a mobile entity for provision to a location-sensitive application, the apparatus comprising a first location-data receiving arrangement operative to periodically obtain location updates from a first source of location data about the current location of the mobile entity (p. 12 ll. 11-20 and 23-29), and a second location-data receiving arrangement for receiving location data about the current location of the mobile entity from at least one other source of location data that is independent of said first source (p. 12 ll. 21-22) , the first location-data arrangement including an update-interval control for extending the interval between location updates obtained from the first source when

location data is available from the second location-data receiving arrangement (p. 13 l. 23 – p. 14 l. 13).

## GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Issue 1: Whether claims 1, 3-5, 8-11, 14, and 16-18 are unpatentable under 35 U.S.C. 103(a) over U.S. Pat. No. 5,774,829 to Cisneros et al. in view of U.S. Pat. No. 6,650,284 to Mannings.

## GROUPING OF CLAIMS

For each ground of rejection which Appellant contests herein and which applies to more than one claim, such additional claims, to the extent separately identified and argued below, do not stand or fall together.

## ARGUMENT

**Issue 1: Whether claims 1, 3-5, 8-11, 14, and 16-18 are unpatentable under 35 U.S.C. 103(a) over U.S. Pat. No. 5,774,829 to Cisneros et al. in view of U.S. Pat. No. 6,650,284 to Mannings.**

In section 3 of the final Office Action of January 13, 2005, the Examiner once again rejects claims 1, 3-5, 8-11, 14, and 16-18 under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,774,829 to Cisneros et al. in view of U.S. Pat. No. 6,650,284 to Mannings. In particular, the Examiner reiterates that Cisneros discloses all limitations of claims 1 and 14, with the exception of adaptively varying the update interval between the location updates from said first source in dependence on the provision of location data indicative of the current location of the mobile entity from at least one other source of location data that operates independently of said first source and the location updates provided thereby. The Examiner further opines that "Mannings, in the same field of endeavor, teaches a method of adaptively varying the frequency or interval of location updates based on the system conditions like size and nature of the overlay area and/or speed of the vehicle" (citing to col. 15, ll. 25-41) and then concludes that it would have been obvious to the skilled person to "provide the teachings of Mannings to Cisneros in order to avoid unnecessary updates and thus improve the transmission capacity."

In his previous reply, Appellant respectfully explained why he was compelled to disagree with the Examiner's characterization and understanding of these references.

"To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." MPEP §2142. Appellant notes that the Examiner had set forth not the slightest hint of such motivation, real or otherwise, in either of the cited references nor has she invoked the general knowledge of those skilled in the art. To broadly allege that the references are "in the same field of endeavor" is irrelevant, as there is no statutory requirement nor legal test that is related to the "field of endeavor" of the references cited in a 35 U.S.C. 103 rejection. The Examiner further offers that the skilled person would attempt the alleged combination of references "to avoid unnecessary updates and thus improve the transmission capacity." Erstwhile, this is not correct – the transmission capacity of both the GPS (i.e. APS) system and the mobile unit is in no way impacted by the amount of GPS signals processed by the mobile unit. Furthermore, why would the skilled person seek to "avoid unnecessary updates?" There is nothing on the face of Cisneros that would lead the skilled person to seek a reduction in the amount of GPS signals processed by the mobile unit nor, for that matter, any indication as to what exactly constitutes an "unnecessary" update.

In section 3 of the final Action, the Examiner alleges to answer the above by tersely asserting that she "relies upon the knowledge generally available to one of ordinary skill in the art to make the combination for example the need to avoid unnecessary updates and thus efficiently utilizing the network resources." [original emphasis] The Examiner's invocation of the general knowledge in the art to support her proposition is not persuasive and falls far short of meeting her burden. The case law is ripe with clear enunciations setting forth the Examiner's duty when relying on the general knowledge in the art. For instance, the Federal Circuit deciding *In re Lee*, Fed. Cir. 00-1158, (January 18, 2002) pronounced:

> The determination of patentability on the ground of unobviousness is ultimately one of judgment. In furtherance of the judgmental process, the patent examination procedure serves both to find, and to place on the official record, that which has been considered with respect to patentability. The patent examiner and

> the Board are deemed to have experience in the field of the invention; however, this experience, insofar as applied to the determination of patentability, must be applied from the viewpoint of "the person having ordinary skill in the art to which said subject matter pertains," the words of section 103. In finding the relevant facts, in assessing the significance of the prior art, and in making the ultimate determination of the issue of obviousness, the examiner and the Board are presumed to act from this viewpoint. Thus when they rely on what they assert to be general knowledge to negate patentability, that knowledge must be articulated and placed on the record. The failure to do so is not consistent with either effective administrative procedure or effective judicial review. The board cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims, but must set forth the rationale on which it relies.
>
> [emphasis added]

Clearly, the final Action is completely lacking any such rationale and all it offers for the Board to rely on are precisely the type of conclusory statements prohibited under the law.

"Second, there must be a reasonable expectation of success... The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." MPEP §2142. In his previous reply, Appellant further noted that the Examiner had also offered not one single detail as to how exactly the skilled person would go about "providing" the teachings of Mannings into the system of Cisneros. If a skilled person reading Mannings would thereafter indeed feel compelled to modify Cisneros, as alleged by the Examiner, the only sensible modification to Cisneros would be to vary the frequency of location updates from both the APS (GPS) and UBS systems in Cisneros in dependence on the mobile unit speed and the updates available at its current position (the "size and nature of the overlay" of Mannings). The Examiner had made no showing whatsoever as to why the skilled person would be motivated to modify Cisneros so as to vary the frequency of updates from the GPS system (equated by the Examiner to the claimed first source of location data) in dependence of provision of location data from the UBS system (interpreted by the Examiner as the claimed other source of location data, independent from the first source). Why

exactly would the skilled person find it obvious to use one as a determining factor in setting the update frequency of the other? If anything, a fair minded reading of Cisneros suggests that the update frequency of both systems should be approximately the same, given that the navigation processor chooses which source of location data to use (GPS or UBS) based upon the estimated accuracy of each, and updating them both on the same schedule will make comparing their estimated accuracies that much more meaningful and mathematically valid. Thus, if a skilled person would decide to modify Cisneros to vary the update frequency, the skilled person would be motivated by the plain language of Cisneros to vary the update frequencies of both systems so as to match one another and thereby enable selecting the system with the best estimated accuracy. This, of course, runs directly contrary to the Examiner's asserted combination of the two references.

In the final Action, the Examiner does not deign to reply to the above point.

Therefore, in view of the above, Appellant respectfully submits that claims 1 and 14 are novel and nonobvious over the art on record.

Claims 2-13 depend from claim 1 and claims 15-19 depend from claim 14. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, in light of the above discussion of claim 1, Appellant submits that claims 2-13 and 15-19 are also allowable at least in view of their dependency.

In view of all of the preceding, Appellant respectfully submits that all pending claims as pending are novel and nonobvious over the art of record and that the Examiner's rejection is not supported by the art, and thus request that the rejection of all claims be overturned on appeal and the case be passed to allowance.

## CONCLUSION

For the extensive reasons advanced above, Appellant respectfully contends that each claim is patentable. Therefore, reversal of all rejections and allowance of the case is respectfully solicited.

I hereby certify that this correspondence is being deposited with the United States Post Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

June 13, 2006
(Date of Transmission)

Alma Smalling
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6/13/06
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Attachments

Claims

1. (previously presented) A method of obtaining location data about a mobile entity for provision to a location-sensitive application, the method comprising:

periodically obtaining location updates indicative of the current location of the mobile entity from a first source of location data; and

extending the interval between the location updates from said first source when location data indicative of the current location of the mobile entity is available from at least one other source of location data that operates independently of said first source and the location updates provided thereby.

2. (original) A method according to claim 1, wherein the first source of location data derives location data from a cellular radio network, said at least one other source of location data being short-range location beacons, the interval between updates from the first source being extended upon location data being received from a said location beacon.

3. (original) A method according to claim 1, wherein the interval between location updates from the first source is dependent on the accuracy of the location data received from said at least one other source of location data.

4. (original) A method according to claim 3, wherein the accuracy of location data received from a said other location data source is determined according to the nature of said other

source of location data.

5. (original) A method according to claim 3, wherein the accuracy of location data received from a said other location data source is explicitly provided along with that location data.

6. (original) A method according to claim 1, wherein the adaptive variation of the interval between updates is further dependent at least on the motion of the mobile entity.

7. (original) A method according to claim 6, wherein the frequency of updates increases with velocity of the mobile entity.

8. (original) A method according to claim 1, wherein the adaptive variation of the interval between updates is further dependent at least on the current environment of the mobile entity.

9. (original) A method according to claim 8, wherein the frequency of updates is higher in environments where the velocity of the mobile entity is expected to change more often.

10. (original) A method according to claim 9, wherein environment information is derived from a map having regard to the current location of the mobile entity.

11. (original) A method according to claim 1, wherein the adaptive variation of the interval between updates is further dependent at least on the progress of the location-sensitive application.

12. (original) A method according to claim 11, wherein said location-sensitive application involves the approach of the mobile entity to a target location, the frequency of updates being increased the closer the mobile entity approaches the target location.

13. (original) A method according to claim 1, wherein the adaptive variation of the interval between updates is further dependent at least on two of the following: the motion of the mobile entity; the current environment of the mobile entity; the progress of the location-sensitive application.

14. (previously presented) Apparatus for obtaining location data about a mobile entity for provision to a location-sensitive application, the apparatus comprising:

a first location-data receiving arrangement operative to periodically obtain location updates from a first source of location data about the current location of the mobile entity; and

a second location-data receiving arrangement for receiving location data about the current location of the mobile entity from at least one other source of location data that is independent of said first source;

the first location-data arrangement including an update-interval control for extending the interval between location updates obtained from the first source when location data is available from the second location-data receiving arrangement.

15. (original) Apparatus according to claim 14, wherein the first location-data receiving arrangement is operative to obtain location updates from a cellular radio network serving as said

first source of location, and the second location-data receiving arrangement is operative to receive location data from short-range location beacons; the update-interval control of the first location-data receiving arrangement being operative to extend the interval between location updates from the first source upon location data being received from a said location beacon by the second location-data receiving arrangement.

16. (original) Apparatus according to claim 14, wherein the update-interval control of the first location-data receiving arrangement is operative to set the interval between location updates from the first source in dependence on the accuracy of location data received from said at least one other source of location data.

17. (original) Apparatus according to claim 16, wherein the update-interval control of the first location-data receiving arrangement is operative to determine the accuracy of location data received from a said other location data source according to the nature of said other source of location data.

18. (original) Apparatus according to claim 16, wherein the update-interval control of the first location-data receiving arrangement is operative to determine the accuracy of location data received from a said other location data source on the basis of accuracy data received along with the location data by said second location-data receiving arrangement.

19. (original) Apparatus according to claim 14, wherein the update-interval control of the first location-data receiving

arrangement is further operative to adaptively vary the interval between updates in dependence on at least one of the following: the motion of the mobile entity; the current environment of the mobile entity; the progress of the location-sensitive application.

There is no evidence submitted with the present Brief on Appeal.

There are no other appeals or interferences related to the present application.